

## SULFUR

(Data in thousand metric tons, sulfur content, unless otherwise specified)

**Domestic Production and Use:** In 2025, recovered elemental sulfur and byproduct sulfuric acid were produced at 86 operations in 26 States. Total shipments in 2025 were valued at about \$1.4 billion, \$1 billion more than the value of shipments in 2024 owing to the price increasing to \$180 per ton from \$46 per ton. Elemental sulfur production was estimated to be 7.6 million tons; Louisiana and Texas accounted for about 54% of domestic production. Elemental sulfur was recovered, in descending order of tonnage, at petroleum refineries, natural-gas-processing plants, and coking plants by 31 companies at 81 plants in 25 States. Byproduct sulfuric acid, representing about 6% of production of sulfur in all forms, was recovered at five nonferrous-metal smelters in four States by four companies. Domestic elemental sulfur accounted for 63% of domestic consumption, and byproduct sulfuric acid accounted for about 3%. The remaining 34% of sulfur consumed was provided by imported sulfur and sulfuric acid. About 90% of sulfur consumed was in the form of sulfuric acid.

<b>Salient Statistics—United States:</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025<sup>e</sup></b>
Production:					
Recovered elemental	7,470	8,010	8,010	7,790	7,600
Other forms	600	636	640	527	500
Total (rounded)	8,070	8,640	8,650	8,320	8,100
Shipments, all forms	8,080	8,640	8,660	8,080	7,900
Imports for consumption:					
Recovered elemental <sup>e</sup>	3,470	2,910	2,390	2,260	2,000
Sulfuric acid	1,070	1,060	1,080	1,150	1,100
Exports:					
Recovered elemental	1,900	1,740	1,920	2,080	1,800
Sulfuric acid	129	97	64	55	65
Consumption, apparent, all forms <sup>1</sup>	10,600	10,800	10,200	9,360	9,100
Price, average unit value, free on board, mine and (or) plant, dollars per metric ton of elemental sulfur	90.40	177.8	58.90	46.42	180
Stocks, producer, yearend	113	125	122	114	116
Employment, mine and (or) plant, number	2,400	2,400	2,400	2,400	2,400
Net import reliance <sup>2</sup> as a percentage of apparent consumption	24	20	15	14	14

**Recycling:** Typically, between 2.5 million and 5 million tons of spent sulfuric acid is reclaimed from petroleum refining and chemical processes during any given year.

**Import Sources (2021–24):** Elemental: Canada, 53%; Mexico, 7%; Iraq, 6%; Kazakhstan, 6%; and other, 28%. Sulfuric acid: Canada, 54%; Mexico, 22%; Spain, 7%; and other, 17%. Total sulfur imports: Canada, 53%; Mexico, 11%; Kazakhstan, 5%; Iraq, 4%; and other, 27%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12–31–25</b>
Sulfur, crude or unrefined	2503.00.0010		Free.
Sulfur, all kinds, other	2503.00.0090		Free.
Sulfur, sublimed or precipitated	2802.00.0000		Free.
Sulfuric acid	2807.00.0000		Free.

**Depletion Allowance:** 22% (domestic and foreign).

**Government Stockpile:** None.

**Events, Trends, and Issues:** Total U.S. sulfur production and shipments in 2025 were estimated to be 3% less and slightly less, respectively, than those in 2024. Domestic production of elemental sulfur from petroleum refineries and recovery from natural gas operations was estimated to have decreased by 3%. Domestically, refinery sulfur production was expected to remain about the same as refining utilization remains high. Domestic byproduct sulfuric acid production was expected to decrease slightly because several nonferrous-metal smelters experienced periods of planned maintenance.

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Domestic phosphate rock consumption in 2025 was estimated to have decreased compared with that in 2024, which indicated a slight decrease in the amount of sulfur needed to process the phosphate rock into phosphate fertilizers. New sulfur demand associated with phosphate fertilizer projects was expected mostly in Africa and west Asia.

World sulfur production in 2025 was an estimated 84 million tons compared with 83.9 million tons in 2024. Sulfur production was expected to increase owing to upgrades and new refining projects. Also, an increase in nickel production from high-pressure acid leach projects to produce battery materials was expected to increase sulfur demand.

Contract sulfur prices in Tampa, FL, began 2025 at \$116 per long ton. The sulfur price increased to \$270 per long ton in early April, then decreased to \$252 per long ton in early July, and increased to \$310 per long ton in early October 2025. In the past few years, sulfur prices have fluctuated considerably, and the prices in the fourth quarter of 2025 were the highest prices since the second quarter of 2022.

### World Production and Reserves:

	Production, all forms <sup>a</sup>		Reserves <sup>3</sup>
	2024	2025	
United States <sup>4</sup>	8,320	8,100	Reserves of sulfur in crude oil, natural gas, and sulfide ores are large. Because most sulfur production is a result of the processing of fossil fuels, supplies are expected to be adequate for the foreseeable future. Because petroleum and sulfide ores can be processed long distances from where they are produced, sulfur production may not be in the country to which the reserves were attributed. For instance, sulfur from Saudi Arabian oil may be recovered at refineries in the United States.
Australia	900	900	
Canada <sup>4</sup>	5,060	5,000	
Chile	1,500	1,400	
China <sup>5</sup>	19,000	19,000	
India	3,700	3,700	
Iran	2,000	2,100	
Japan <sup>4</sup>	2,750	2,700	
Kazakhstan <sup>4</sup>	4,740	4,800	
Korea, Republic of	3,100	3,100	
Kuwait	1,300	1,300	
Poland	1,000	1,100	
Qatar	3,000	3,100	
Russia	7,400	7,500	
Saudi Arabia	7,200	7,200	
Turkmenistan	880	870	
United Arab Emirates	6,300	6,300	
Other countries	5,100	5,700	
World total (rounded)	83,900	84,000	

**World Resources:**<sup>3</sup> Resources of elemental sulfur in evaporite and volcanic deposits, and sulfur associated with natural gas, petroleum, tar sands, and metal sulfides, total about 5 billion tons. The sulfur in gypsum and anhydrite is almost limitless, and 600 billion tons of sulfur is contained in coal, oil shale, and shale that is rich in organic matter. Production from these sources would require development of low-cost methods of extraction. The domestic sulfur resource is about one-fifth of the world total.

**Substitutes:** Substitutes for sulfur at present or anticipated price levels are not satisfactory; some acids, in certain applications, may be substituted for sulfuric acid, but usually at a higher cost.

<sup>a</sup>Estimated.

<sup>1</sup>Defined as shipments + imports – exports  $\pm$  adjustments for industry stock changes.

<sup>2</sup>Defined as imports – exports  $\pm$  adjustments for industry stock changes.

<sup>3</sup>See Appendix C for resource and reserve definitions and information concerning data sources.

<sup>4</sup>Reported for 2024.

<sup>5</sup>Sulfur production in China includes byproduct elemental sulfur recovered from natural gas and petroleum, the estimated sulfur content of byproduct sulfuric acid from metallurgy, and the sulfur content of sulfuric acid from pyrite.